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Dated: June 22, 2007

Signature: 

(William K. Merkel)

Docket No.: 27373/38819A
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Bernard Roizman et al.

Application No.: 10/530,774

Confirmation No.: 2653

Filed: November 17, 2005

Art Unit: 1648

For: TARGETING OF HERPES SIMPLEX VIRUS
TO SPECIFIC RECEPTORS

Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

In accordance with 37 CFR 1.98(a)(2)(ii), Applicant has not submitted copies of U.S. patents and U.S. patent applications. Applicant submits herewith copies of foreign patents and non-patent literature in accordance with 37 CFR 1.98(a)(2).

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an

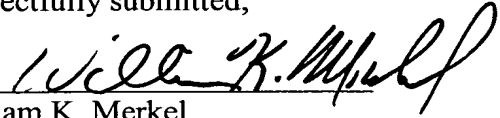
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It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 13-2855, under Order No. 27373/38819A. A duplicate copy of this paper is enclosed.

Dated: June 22, 2007

Respectfully submitted,

By 
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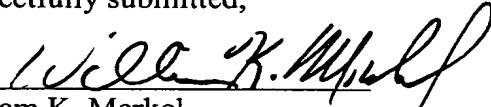
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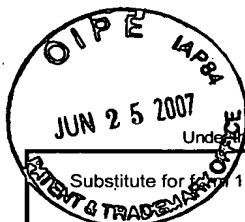
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Substitute for Form 1449A/B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 3

Complete if Known

Application Number	10/530,774
Filing Date	April 7, 2005
First Named Inventor	Bernard Roizman
Art Unit	1648
Examiner Name	Not Yet Assigned
Attorney Docket Number	27373/38819A

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		5,328,688	07-12-1994	Roizman	
		5,599,691	02-04-1997	Roizman	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
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NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Arsenakis, et al., "Expression and Regulation of Glycoprotein C Gene of Herpes Simplex Virus 1 Resident in a Clonal L-Cell Line," J. Virol. 58(2):367-76 (1986)	
		Brooks, et al., "Ingerin $\alpha_3\beta_3$ Antagonists Promote Tumor Regression by Inducing Apoptosis of Angiogenic Blood Vessels," Cell 79:1157-1164 (1994)	
		Brooks, et al., "Requirement of Vascular Integrin $\alpha_3\beta_3$ for Angiogenesis," Science 264:569-571 (1994)	
		Brunetti, et al., "Herpes Simplex Virus gD and Virions Accumulate in Endosomes by Mannose 6-Phosphate-Dependent and -Independent Mechanisms," J of Virol 72(4):3330-3339 (1998)	
		Burger, et al., "Expression Analysis of δ -Catenin and Prostate-Specific Membrane Antigen: Their Potential as Diagnostic Markers for Prostate Cancer," Int. J. Cancer 100:228-237 (2002)	
		Campadelli-Fiume, et al., "The novel receptors that mediate the entry of herpes simplex viruses and animal alphaherpesviruses into cells," Rev. Med. Virol. 10:305-319 (2000)	
		Carfi, et al., "Herpes Simplex Virus Glycoprotein D-Bound to the Human Receptor HveA," Mol. Cell. 8(1):169-79 (2001)	
		Cassady, et al., "The Second-Site Mutation in the Herpes Simplex Virus Recombinants Lacking the γ_1 34.5 Genes Precludes Shutoff of Protein Synthesis by Blocking the Phosphorylation of eIF-2 α " J. Virol. 72(9):7005-11 (1998)	
		Chou, et al., "Association of a Mr 90,000 phosphoprotein with protein kinase PKR in cells exhibiting enhanced phosphorylation of translation initiation factor eIF-2 α and premature shutoff of protein synthesis after infection with γ_1 34.5 mutants of herpes simplex virus 1," Proc Natl Acad Sci USA 92(23):10516-20 (1995)	
		Cocchi, et al., "The Ectodomain of a Novel Member of the Immunoglobulin Subfamily Related to the Poliovirus Receptor Has the Attributes of a Bona Fide Receptor for Herpes Simplex Virus Types 1 and 2 in Human Cells," J. Virol. 72:9992-10002 (1998)	
		Connolly, "Potential Nectin-1 Binding Site on Herpes Simplex Virus Glycoprotein D," J. Virol, 79: 1282-1295 (2005)	
		Davis, et al., "Survival rates in patients with primary malignant brain tumors stratified by patient age and tumor histological type: an analysis based on Surveillance, Epidemiology, and End Results (SEER) data, 1973-1991" J. Neurosurg. 88:1-10 (1998)	
		Debinski, "An Immune Regulatory Cytokine Receptor and Glioblastoma Multiforme: An Unexpected Link," Crit. Rev. Oncogen 9:255-268 (1998)	

Examiner Signature	Date Considered
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Complete if Known

Application Number	10/530,774
Filing Date	April 7, 2005
First Named Inventor	Bernard Roizman
Art Unit	1648
Examiner Name	Not Yet Assigned
Attorney Docket Number	27373/38819A

Sheet	2	of	3
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		Debinski, et al., "Receptor for Interleukin 13 is a Marker and Therapeutic Target for Human High-Grade Gliomas ¹ ," Clin. Cancer Res. 5:985-990 (1999)	
		Debinski, et al., "Retargeting Interleukin 13 for Radioimmunodetection and Radioimmunotherapy of Human High-grade Gliomas," Clin. Cancer Res. 5(10 Suppl):3143s-3147s (1999)	
		Debinski, et al., "Molecular Expression Analysis of Restrictive Receptor for Interleukin 13, a Brain Tumor-associated Cancer/Testis Antigen," Mol. Med. 6:440-449 (2000)	
		de Vries et al., "Scintigraphic Imaging of HSVtk Gene Therapy," Current Pharmaceutical Design 8:1435-1450 (2002)	
		de Vries, et al., "Positron emission tomography: measurement of transgene expression," Methods 27(3):234-241 (2002)	
		Ellerman, et al., "Identification of a Determinant of Epidermal Growth Factor Receptor Ligand-Binding Specificity Using a Truncated, High-Affinity Form of the Ectodomain," Biochemistry 40:8930-8939 (2001)	
		Fracasso, et al., "Anti-tumor Effects of Toxins Targeted to the Prostate Specific Membrane Antigen," Prostate 53:9-23 (2002)	
		Gembitsky, et al., "A specific binding site for a fragment of the B-loop of epidermal growth factor and related peptides," Peptides 23:97-102 A. (2001)	
		Hayashi, et al., "MUC1 Mucin Core Protein Binds to the Domain 1 of ICAM-1," Digestion 63:87-92 (2001)	
		He, et al., "Suppression of the Phenotype of γ_1 34.5' Herpes Simplex Virus 1: Failure of Activated RNA-Dependent Protein Kinase to Shut Off Protein Synthesis is Associated with a Deletion in the Domain of the $\alpha 47$ Gene," J. Virol. 71(8):6049-54 (1997)	
		International Search Report from PCT/US03/31598	
		Laquerre, et al., "Heparan Sulfate Proteoglycan Binding by Herpes Simplex virus Type 1 Glycoproteins B and C, Which Differ in Their Contributions to Virus Attachment, Penetration, and Cell-to-Cell Spread," J. Virol. 72(7):6119-30 (1998)	
		Leib, et al., "Interferons Regulate the Phenotype of Wild-type and Mutant Herpes Simplex Viruses In Vivo," J. Exp. Med. 189:663-672 (1999)	
		Lorimer, et al., "Targeting retrovirus to cancer cells expressing a mutant EGF receptor by insertion of a single chain antibody variable domain in the envelope glycoprotein receptor binding lobe," J Immunol Methods 237(1-2):147-57 (2000)	
		Mabjeesh, et al., "Gene therapy of prostate cancer: current and future directions," Endo. Related Cancer 9:115-139 (2002)	
		Manoj et al., "Mutations in herpes simplex virus glycoprotein D that prevent cell entry via nectins and alter cell tropism," Proc. Natl. Acad. Sci. USA., 101: 12414-12421 (2004)	
		Markert, et al., "Conditionally replicating herpes simplex virus mutant, G207 for the treatment of malignant glioma: results of a phase I trial," Gene Ther. 7(10):867-74 (2000)	
		McKie, et al., "Histopathological responses in the CNS following inoculation with a non-neurovirulent mutant (1716) of herpes simplex virus type 1 (HSV 1): relevant for gene and cancer therapy," Neuropathol Appl Neurobiol. 24(5):367-72 (1998)	
		Mineta, et al., "Attenuated multi-mutated herpes simplex virus-1 for the treatment of malignant gliomas," Nat Med., 1(9):938-43 (1995)	
		Mintz A., et al., "IL-13R α 2 is a Glioma-Restricted Receptor for Interleukin-13," Neoplasia 4:388-399 (2002)	
		Montgomery, et al., "Herpes Simplex Virus-1 Entry into Cells Mediated by a Novel Member of the TNF/NGF Receptor Family," Cell 87:427-436 (1996)	
		Pyles, et al., "A Novel Multiply-Mutated HSV-1 Strain for the Treatment of Human Brain Tumors," Human Gene Ther. 8(5):533-44 (1997)	
		Ramplung, et al., "Toxicity evaluation of replication-competent herpes simplex virus (ICP 34.5 null mutant 1716) in patients with recurrent malignant glioma," Gene Ther. 7(10):859-66 (2000)	
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Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Complete if Known	
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		Ross, et al., "Prostate Stem Cell Antigen as Therapy Target: Tissue Expression and <i>in Vivo</i> Efficacy of an Immunoconjugate," <i>Cancer Res.</i> 62:2546-2553 (2002)	
		Ruoslahti, E., "RGD and Other Recognition Sequences for Integrins," <i>Annu. Rev. Cell Dev. Biol.</i> 12:697-715 (1996)	
		Rux et al., "Functional Region IV of Glycoprotein D from Herpes Simplex Virus Modulates Glycoprotein Binding to the Herpesvirus Entry Mediator," <i>Journal of Virology</i> , 72(9):7091-7098 (1998)	
		Sharma, et al., "Molecular Imaging of Gene Expression and Protein Function <i>In Vivo</i> With PET and SPECT," <i>J Magn Reson Imaging</i> 16(4):336-51 (2002)	
		Simard, et al., "Sequence Analysis of the UL39, UL38, and UL37 Homologues of Bovine Herpesvirus 1 and Expression Studies of UL40 and UL39, the Subunits of Ribonucleotide Reductase," <i>Virology</i> 212(2):734-40 (1995)	
		Soling, et al., "Intracellular localization of Herpes simplex virus type 1 thymidine kinase fused to different fluorescent proteins depends on choice of fluorescent tag," <i>FEBS Lett.</i> 527(1-3):153 (2002)	
		Spear, et al., "Three Classes of Cell Surface Receptors for Alpha herpesvirus Entry," <i>Virology</i> 275:1-8 (2000)	
		Thomas, et al., "Preoperative Combined Nested Reverse Transcriptase Polymerase Chain Reaction for Prostate-Specific Antigen and Prostate-specific Membrane Antigen Does Not Correlate With Pathologic Stage or Biochemical Failure in Patients With Localized Prostate Cancer Undergoing Radical Prostatectomy," <i>J. Clin. Oncol.</i> 20:3213-3218 (2002)	
		Turner, et al., "Glycoproteins gB, gD, and gHgL of Herpes Simplex Virus Type 1 Are Necessary and Sufficient to Mediate Membrane Fusion in a Cos Cell Transfection System," <i>J of Virol</i> 72(1): 873-75 (1998)	
		Urbanelli, et al., "Targeted Gene Transduction of Mammalian Cells Expressing the HER2/neu Receptor by Filamentous Phage," <i>J Mol Biol.</i> Nov 9:313(5):965-76 (2001)	
		Ye, et al., "The essential protein encoded by the UL31 gene of herpes simplex virus 1 depends for its stability on the presence of UL34 protein," <i>Proc. Natl. Acad. Sci. USA</i> 97(20):11002-7 (2000)	
		Zago et al., "Use of herpes simplex virus and pseudorabies virus chimeric glycoprotein D molecules to identify regions critical for membrane fusion," <i>Proc. Natl. Acad. Sci. USA.</i> , 101: 17498-17503 (2004)	
		Zhou et al., "Characterization of a Recombinant Herpes Simplex Virus 1 Designed to Enter Cells via the IL13Rα2 Receptor of Malignant Glioma Cells," <i>J. Virol</i> , 9: 5272-5277 (2005)	
		Zhou, et al., "Glycoprotein D or J Delivered in <i>trans</i> Blocks Apoptosis in SK-N-SH Cells Induced by a Herpes Simplex Virus 1 Mutant Lacking Intact Genes Expressing Both Glycoproteins," <i>J. Virol</i> , 74(24):11782-91 (2000)	
		Zhou, et al., "The Domains of Glycoprotein D Required to Block Apoptosis Depend on Whether Glycoprotein D is Present in the Virions Carrying Herpes Simplex Virus 1 Genome Lacking the Gene Encoding the Glycoprotein," <i>J. Virol.</i> 75(13):6166-72 (2001)	
		Zhou, et al., "Cation-Independent Mannose 6-Phosphate Receptor Blocks Apoptosis Induced by Herpes Simplex Virus 1 Mutants Lacking Glycoprotein D and Is Likely the Target of Antiapoptotic Activity of the Glycoprotein," <i>J. Virol.</i> 76(12):6197-204 (2002)	

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